```mathematica
Text[Style[
  "---------------------------------------------------------------------", Green, 14]]
Text[Style["In The Name Of GOD , The Most Beneficent , The Most Merciful",
  RGBColor["#00a00b"], 14]]
Text[Style["---------------------------------------------------------------",
  Green, 14]]
Text[Style["---------------------------------------------------------------",
  RGBColor["#2980b9"], 14]]
Text[Style["Limit Revolution , First Example", RGBColor["#2980b9"], 30]]
Text[Style["---------------------------------------------------------------",
  RGBColor["#2980b9"], 14]]

Text[Style["Step 1 : Defining The Integer Part Function.", RGBColor["#2980b9"], 14]]

Intg = Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]

Text[Style["Step 2 : Defining The Main Function That We Want To Find It,s Limit.",
  RGBColor["#2980b9"], 14]]

F = Function[{x}, Intg[x]/x]
Text[Style["Step 3 : Transformed Function Chart", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
  RGBColor["#2980b9"], 14]]

P001 = Plot[{ArcTan[Intg[Tan[x]]] / ArcTan[Tan[x]]},
  {x, -Pi / 2, Pi / 2}, PlotRange → {-Pi / 2, Pi / 2}, Frame → True]

Text[Style["Step 4 : The Y=(Limit Answer) Chart.", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
  RGBColor["#2980b9"], 14]]

P002 = Plot[{ArcTan[Intg[Tan[π/2 - 0.01 * 10^-300]]] / ArcTan[Tan[π/2 - 0.01 * 10^-300]]},
  {x, -π/2, π/2}, PlotRange → {-π/2, π/2}, Frame → True]

Text[Style["Step 5 : Ploting The Two Previous Functions On The Same Graphics Row.",
  RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
  RGBColor["#2980b9"], 14]]

P003 = Plot[{ArcTan[Intg[Tan[x]]] / ArcTan[Tan[x]],
  ArcTan[Intg[Tan[π/2 - 0.01 * 10^-300]]] / ArcTan[Tan[π/2 - 0.01 * 10^-300]]},
  {x, -π/2, π/2}, PlotRange → {-π/2, π/2}, Frame → True]

Text[
```

```
Style["Step 6 : Ploting The Transformed Function And The Y= (Limit Answer) And Two
    Previous Functions On The Same Plot.", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
  RGBColor["#2980b9"], 14]]
```

```
GraphicsRow[{P001, P002, P003}, Frame → All]
```

Text$\Big[$Style$\Big[$

"Step 7 : Printing The Result of Limit$[\frac{\text{Intg}[x]}{x}$,x→+Infinity] Using New Methods .",

RGBColor["#2980b9"], 14$\Big]\Big]$

$$\text{ArcTan}\Big[\text{Intg}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01 * 10^{-300}\Big]\Big]\Big]\Big/ \text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01 * 10^{-300}\Big]\Big]$$

In The Name Of GOD , The Most Beneficent , The Most Merciful

Limit Revolution , First Example

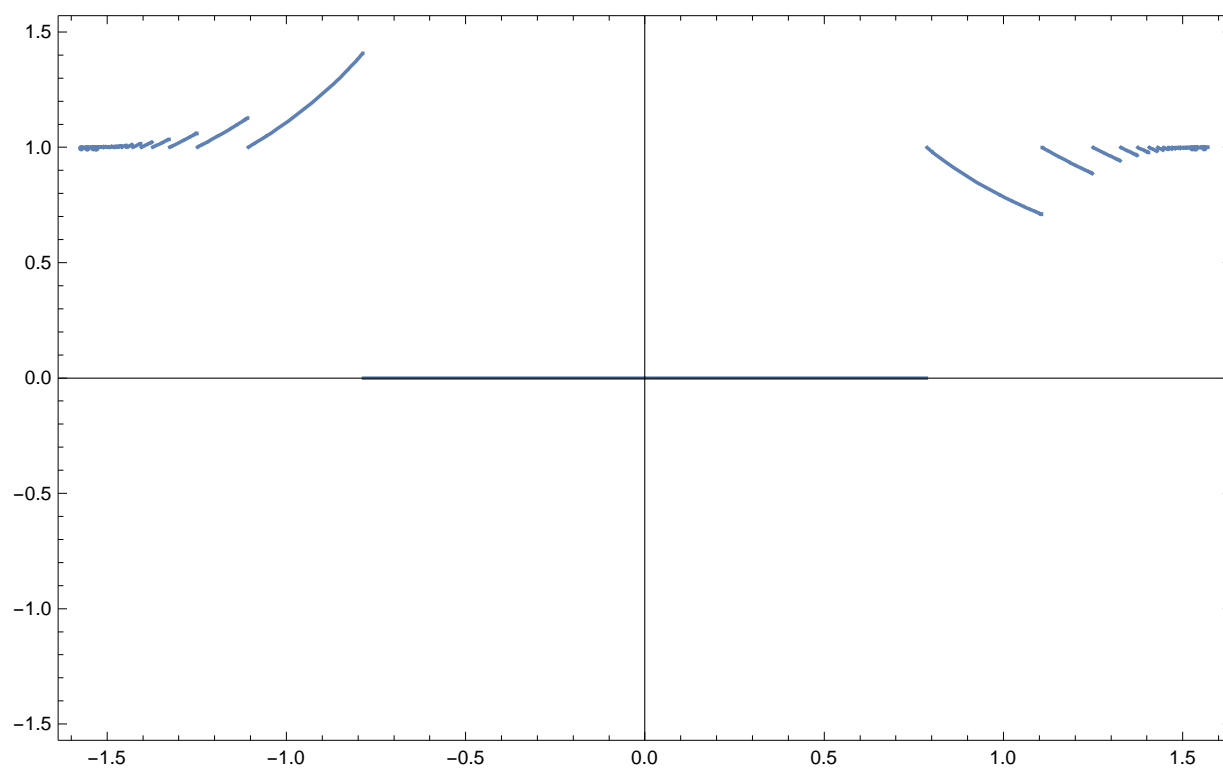
Step 1 : Defining The Integer Part Function.

```
Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]
```

Step 2 : Defining The Main Function That We Want To Find It,s Limit.
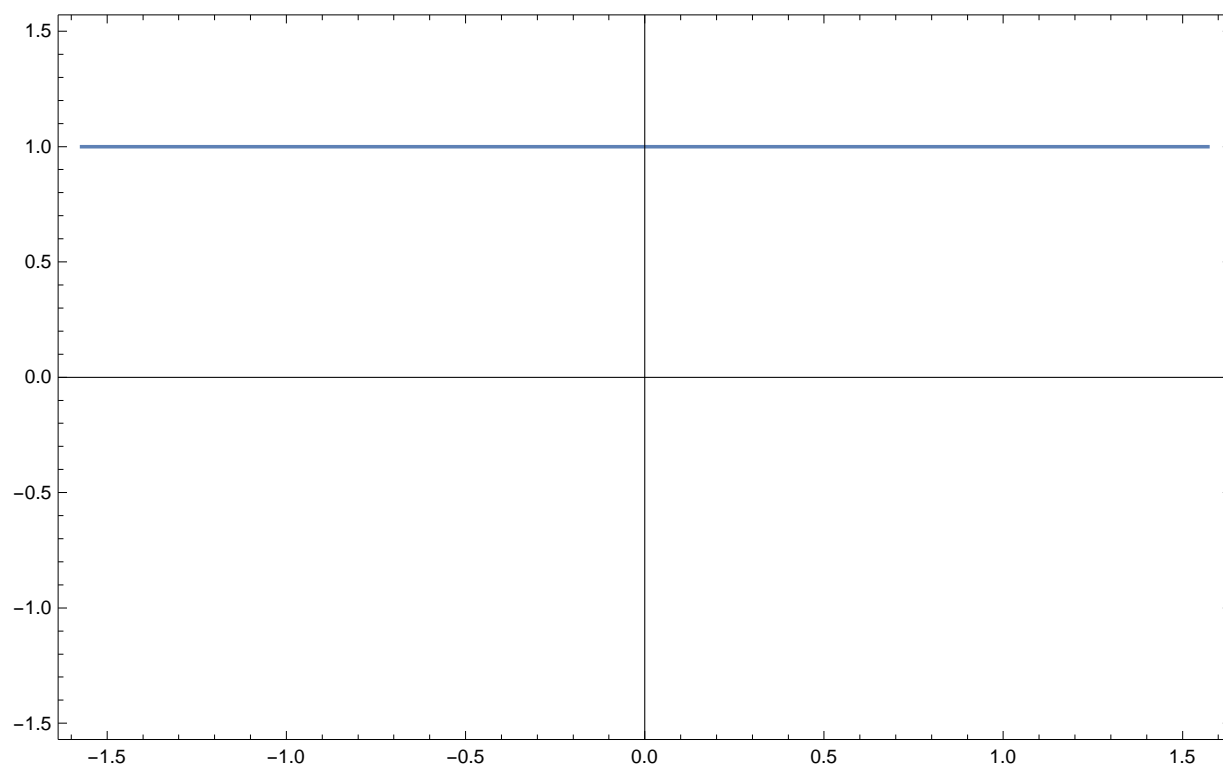
Function$\Big[\{x\}, \frac{\text{Intg}[x]}{x}\Big]$

Step 3 : Transformed Function Chart
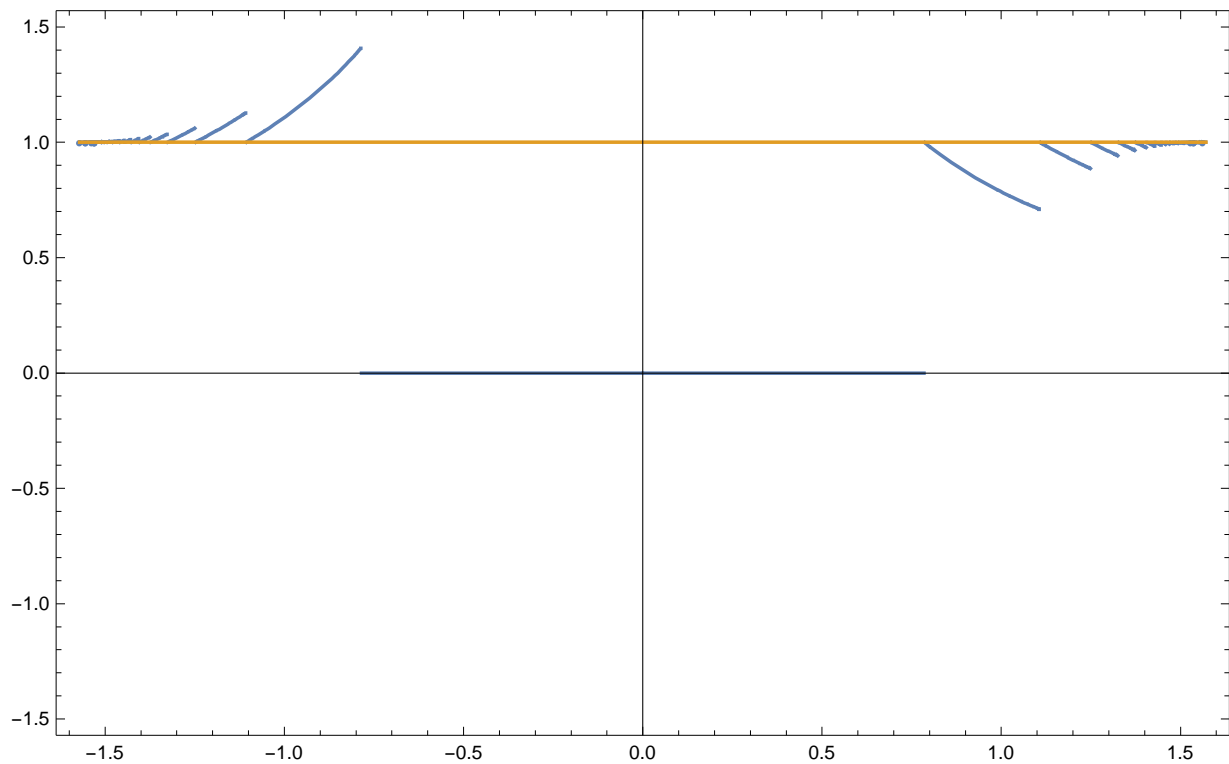
Please Read The Infinity Plot And It,s Applications Theory

Step 4 : The Y=(Limit Answer) Chart.

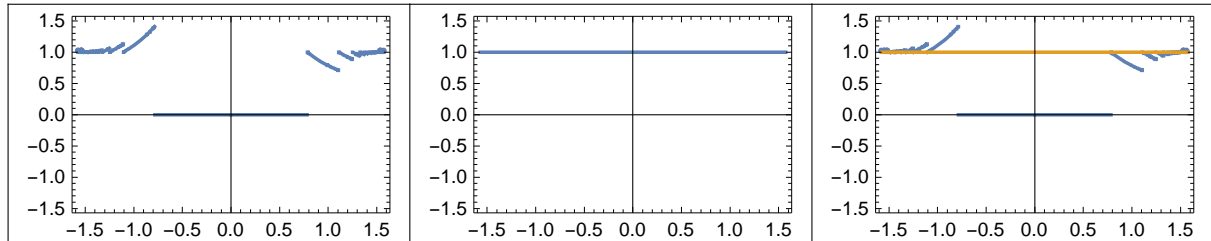Please Read The Infinity Plot And It,s Applications Theory

Step 5 : Ploting The Two Previous Functions On The Same Graphics Row.

Please Read The Infinity Plot And It,s Applications Theory

Step 6 : Ploting The Transformed Function And The
   Y=(Limit Answer) And Two Previous Functions On The Same Plot.

Please Read The Infinity Plot And It,s Applications Theory

Step 7 : Printing The Result of Limit[$\frac{Intg[x]}{x}$,x→+Infinity] Using New Methods .

1.

```
Text[Style[
  "-----------------------------------------------------------", Green, 14]]
Text[Style["In The Name Of GOD , The Most Beneficent , The Most Merciful",
  RGBColor["#00a00b"], 14]]
Text[Style["-----------------------------------------------------------",
  Green, 14]]
Text[Style["-----------------------------------------------------------",
  RGBColor["#2980b9"], 14]]
Text[Style["Limit Revolution , Second Example", RGBColor["#2980b9"], 30]]
Text[Style["-----------------------------------------------------------",
  RGBColor["#2980b9"], 14]]

Text[Style["Step 1 : Defining The Integer Part Function.", RGBColor["#2980b9"], 14]]

Intg = Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]
```

```
Text[Style["Step 2 : Defining The Main Function That We Want To Find It,s Limit.",
   RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$G = \text{Function}\Big[\{x\}, \frac{\text{Intg}[x]^{\text{Sin}[x]}}{x}\Big]$$

```
Text[Style["Step 3 : Transformed Function Chart", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$\text{P001} = \text{Plot}\Big[\Big\{\frac{\text{ArcTan}[\text{Intg}[\text{Tan}[x]]]^{\text{ArcTan}[\text{Sin}[\text{Tan}[x]]]}}{\text{ArcTan}[\text{Tan}[x]]}\Big\},$$
$$\Big\{x, -\frac{\pi}{2}, \frac{\pi}{2}\Big\}, \text{PlotRange} \to \Big\{-\frac{\pi}{2}, \frac{\pi}{2}\Big\}, \text{Frame} \to \text{True}, \text{Frame} \to \text{True}\Big]$$

```
Text[Style["Step 4 : The Y=(Limit Answer) Chart.", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$\text{P002} = \text{Plot}\Big[\Big\{\text{ArcTan}\Big[\text{Intg}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01 * 10^{-300}\Big]\Big]\Big]^{\text{ArcTan}\big[\text{Sin}\big[\text{Tan}\big[\frac{\pi}{2}-0.01*10^{-300}\big]\big]\big]}\Big/$$
$$\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01 * 10^{-300}\Big]\Big]\Big\}, \{x, -\text{Pi}/2, \text{Pi}/2\},$$
$$\text{PlotRange} \to \{-\pi/2, \pi/2\}, \text{Frame} \to \text{True}, \text{Frame} \to \text{True}\Big]$$

```
Text[Style["Step 5 : Ploting The Two Previous Functions On The Same Plot.",
   RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$\text{P003} = \text{Plot}\Big[\Big\{\frac{\text{ArcTan}[\text{Intg}[\text{Tan}[x]]]^{\text{ArcTan}[\text{Sin}[\text{Tan}[x]]]}}{\text{ArcTan}[\text{Tan}[x]]},$$
$$\text{ArcTan}\Big[\text{Intg}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01 * 10^{-300}\Big]\Big]\Big]^{\text{ArcTan}\big[\text{Sin}\big[\text{Tan}\big[\frac{\pi}{2}-0.01*10^{-300}\big]\big]\big]}\Big/$$
$$\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01 * 10^{-300}\Big]\Big]\Big\},$$
$$\{x, -\text{Pi}/2, \text{Pi}/2\}, \text{PlotRange} \to \{-\pi/2, \pi/2\}, \text{Frame} \to \text{True}\Big]$$

```
Text[
 Style["Step 6 : Ploting The Transformed Function And The Y=(Limit Answer) And Two
    Previous Functions On The Same Graphics Row.", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

```
GraphicsRow[{P001, P002, P003}, Frame → All]
```

```
Text[

  Style["Step 7 : Printing The Result of Limit[ Intg[x]^Sin[x] / x ,x→+Infinity] Using New

     Methods .", RGBColor["#2980b9"], 14]]
```

$$\text{ArcTan}\left[\text{Intg}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]\right] \wedge \text{ArcTan}\left[\text{Sin}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]\right] \Big/$$

$$\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]$$

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In The Name Of GOD , The Most Beneficent , The Most Merciful

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Limit Revolution , Second Example

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Step 1 : Defining The Integer Part Function.

```
Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]
```
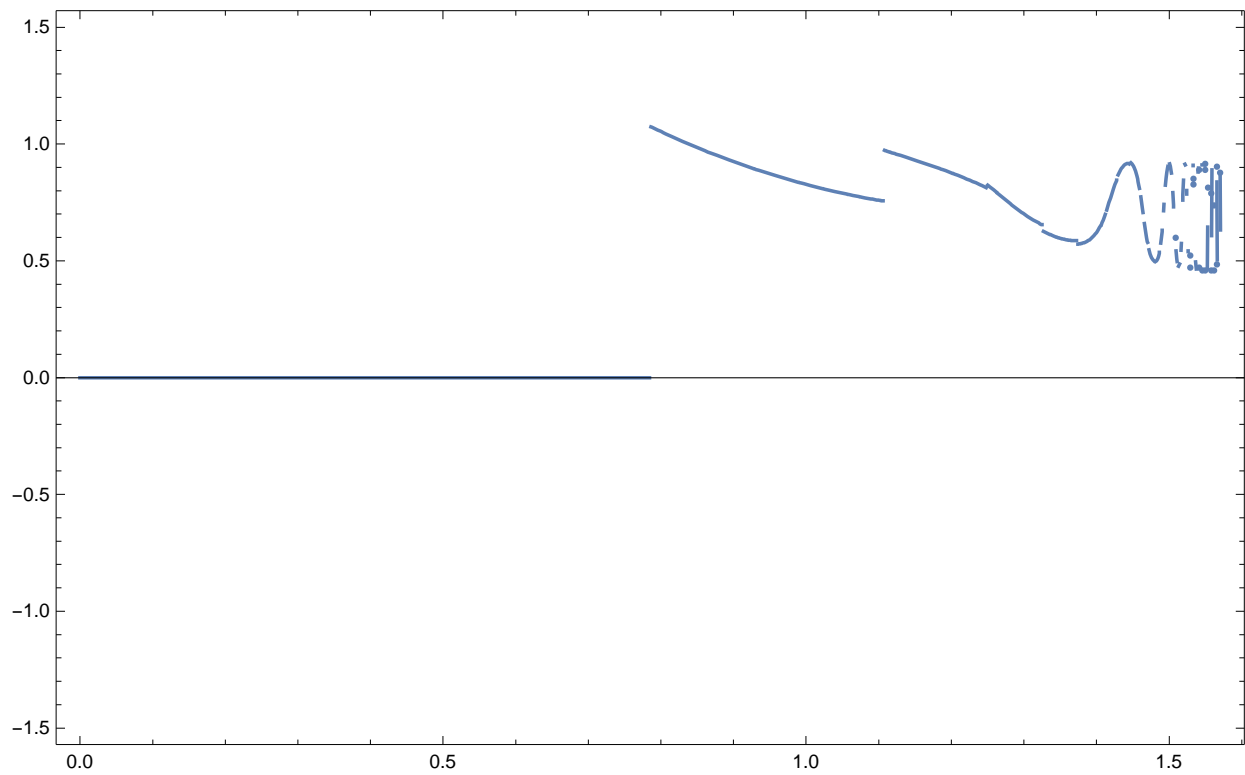
Step 2 : Defining The Main Function That We Want To Find It,s Limit.

Please Read The Infinity Plot And It,s Applications Theory

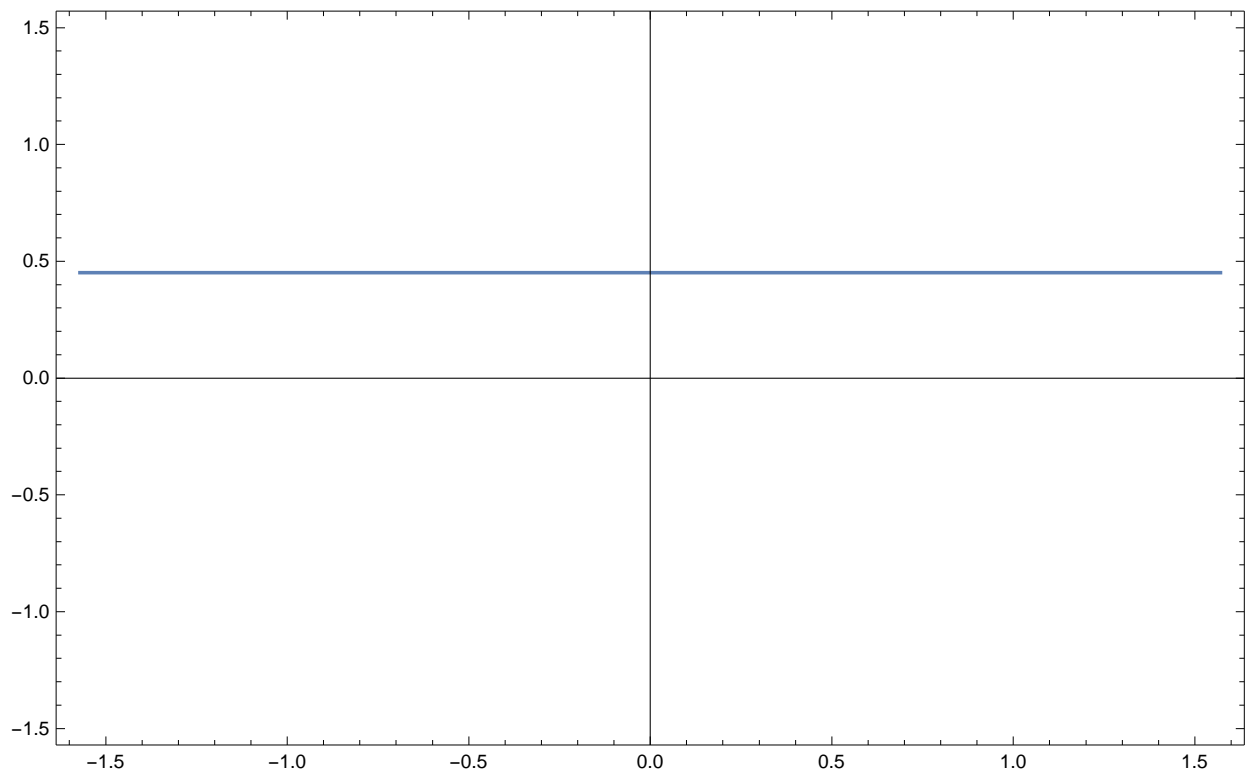$$\text{Function}\left[\{x\}, \frac{\text{Intg}[x]^{\text{Sin}[x]}}{x}\right]$$

Step 3 : Transformed Function Chart

Please Read The Infinity Plot And It,s Applications Theory
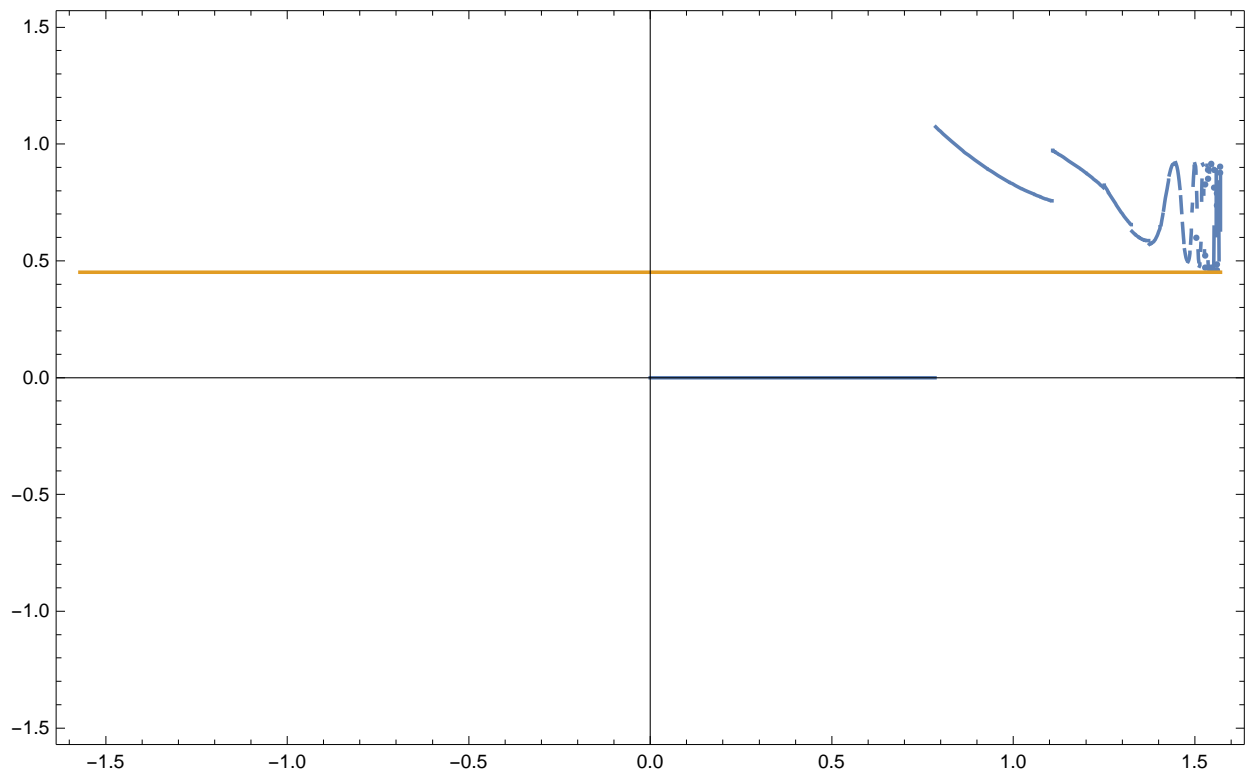
Step 4 : The Y=(Limit Answer) Chart.

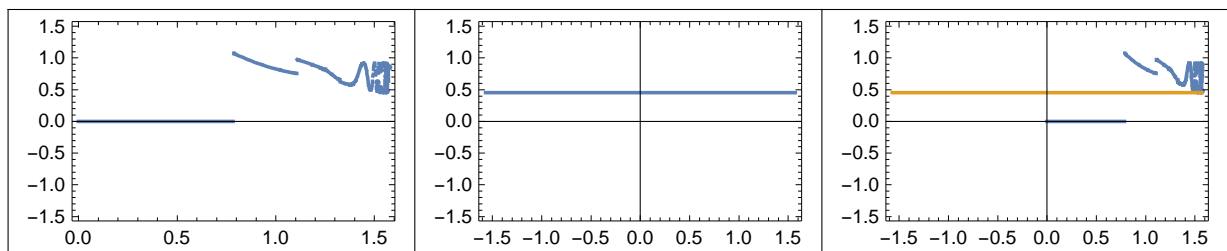Please Read The Infinity Plot And It,s Applications Theory

Step 5 : Ploting The Two Previous Functions On The Same Plot.

Please Read The Infinity Plot And It,s Applications Theory

Step 6 : Ploting The Transformed Function And The Y=(Limit Answer) And Two Previous Functions On The Same Graphics Row.

Please Read The Infinity Plot And It,s Applications Theory

Step 7 : Printing The Result of Limit[$\frac{Intg[x]^{Sin[x]}}{x}$,x→+Infinity] Using New Methods .

```
0.450799
```

```
Text[Style[
  "-----------------------------------------------------------", Green, 14]]
Text[Style["In The Name Of GOD , The Most Beneficent , The Most Merciful",
  RGBColor["#00a00b"], 14]]
Text[Style["-----------------------------------------------------------",
  Green, 14]]
Text[Style["-----------------------------------------------------------",
  RGBColor["#2980b9"], 14]]
Text[Style["Limit Revolution , Third Example", RGBColor["#2980b9"], 30]]
Text[Style["-----------------------------------------------------------",
  RGBColor["#2980b9"], 14]]


Text[Style["Step 1 : Defining The Integer Part Function.", RGBColor["#2980b9"], 14]]

Intg = Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]
```

```
Text[Style["Step 2 : Defining The Main Function That We Want To Find It,s Limit.",
   RGBColor["#2980b9"], 14]]
```

$$H = \text{Function}\left[\{x\}, \frac{\text{Intg}[x]^{x^x}}{x^x}\right]$$

```
Text[Style["Step 3 : Transformed Function Chart", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$P001 = \text{Plot}\Big[\{\text{ArcTan}[\text{Intg}[\text{Tan}[x]]]\,^{\wedge}\text{ArcTan}[\text{Tan}[x]]\,^{\wedge}\text{ArcTan}[\text{Tan}[x]] \,/$$

$$\text{ArcTan}[\text{Tan}[x]]\,^{\wedge}\text{ArcTan}[\text{Tan}[x]]\}, \left\{x, -\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{PlotRange} \rightarrow \left\{-\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{Frame} \rightarrow \text{True}\Big]$$

```
Text[Style["Step 4 : The Y=(Limit Answer) Chart.", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$P002 = \text{Plot}\Big[\Big\{\text{ArcTan}\Big[\text{Intg}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\Big]\,^{\wedge}$$

$$\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\,^{\wedge}\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\Big/$$

$$\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\,^{\wedge}\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\Big\},$$

$$\left\{x, -\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{PlotRange} \rightarrow \left\{-\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{Frame} \rightarrow \text{True}\Big]$$

```
Text[Style["Step 5 : Ploting The Two Previous Functions On The Same Plot.",
   RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$P003 =$$
$$\text{Plot}\Big[\Big\{\text{ArcTan}[\text{Intg}[\text{Tan}[x]]]\,^{\wedge}\text{ArcTan}[\text{Tan}[x]]\,^{\wedge}\text{ArcTan}[\text{Tan}[x]] \,/$$

$$\text{ArcTan}[\text{Tan}[x]]\,^{\wedge}\text{ArcTan}[\text{Tan}[x]], \text{ArcTan}\Big[\text{Intg}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\Big]\,^{\wedge}$$

$$\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\,^{\wedge}\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\Big/$$

$$\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\,^{\wedge}\text{ArcTan}\Big[\text{Tan}\Big[\frac{\pi}{2} - 0.01*10^{-300}\Big]\Big]\Big\},$$

$$\left\{x, -\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{PlotRange} \rightarrow \left\{-\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{Frame} \rightarrow \text{True}\Big]$$

```
Text[
  Style["Step 6 : Ploting The Transformed Function And The Y=(Limit Answer) And Two
     Previous Functions On The Same Graphics Row.", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

```
GraphicsRow[{P001, P002, P003}, Frame → All]
```

```
Text[Style[
```

$$\text{"Step 7 : Printing The Result of Limit}[\frac{\text{Intg}[x]^{x^x}}{x^x}, x \to +\text{Infinity}] \text{ Using New Methods ."},$$

```
  RGBColor["#2980b9"], 14]]
```

$$\text{ArcTan}\left[\text{Intg}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]\right] \wedge$$
$$\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right] \wedge \text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right] \Big/$$
$$\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right] \wedge \text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]$$

In The Name Of GOD , The Most Beneficent , The Most Merciful

Limit Revolution , Third Example

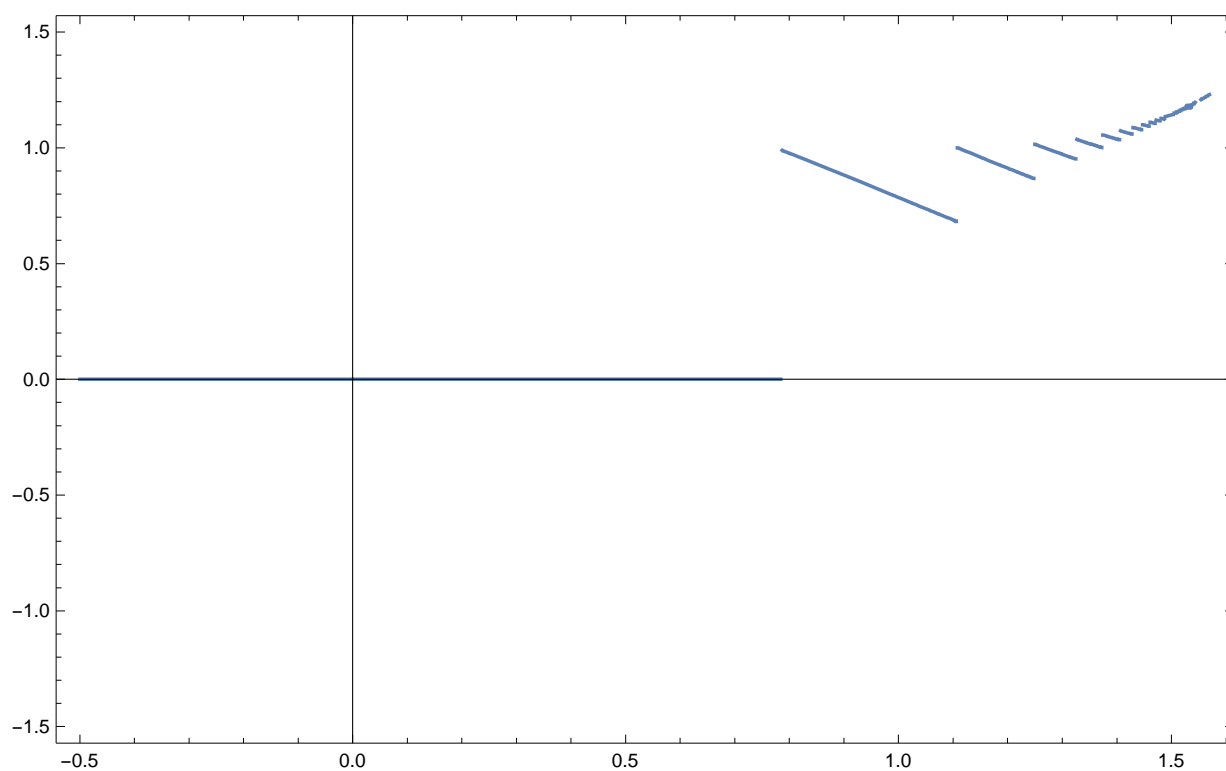Step 1 : Defining The Integer Part Function.

```
Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]
```

Step 2 : Defining The Main Function That We Want To Find It,s Limit.

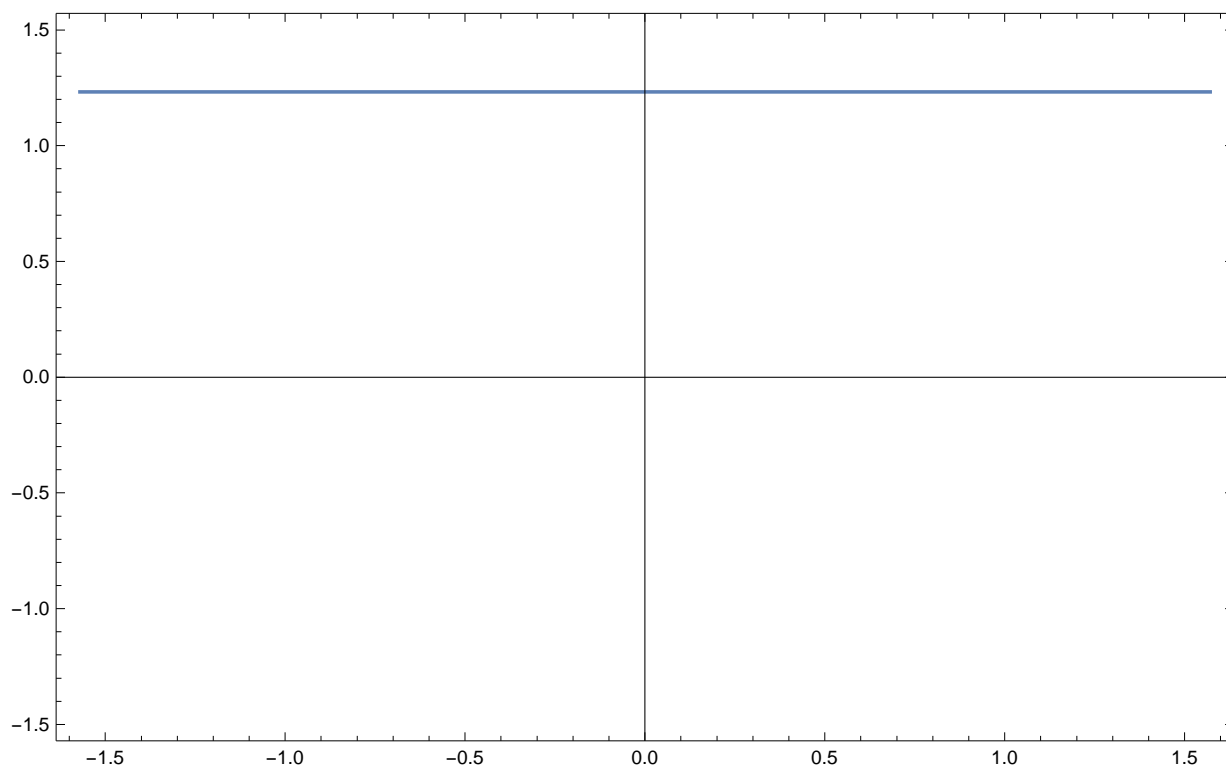$$\text{Function}\left[\{x\}, \frac{\text{Intg}[x]^{x^x}}{x^x}\right]$$

Step 3 : Transformed Function Chart

Please Read The Infinity Plot And It,s Applications Theory
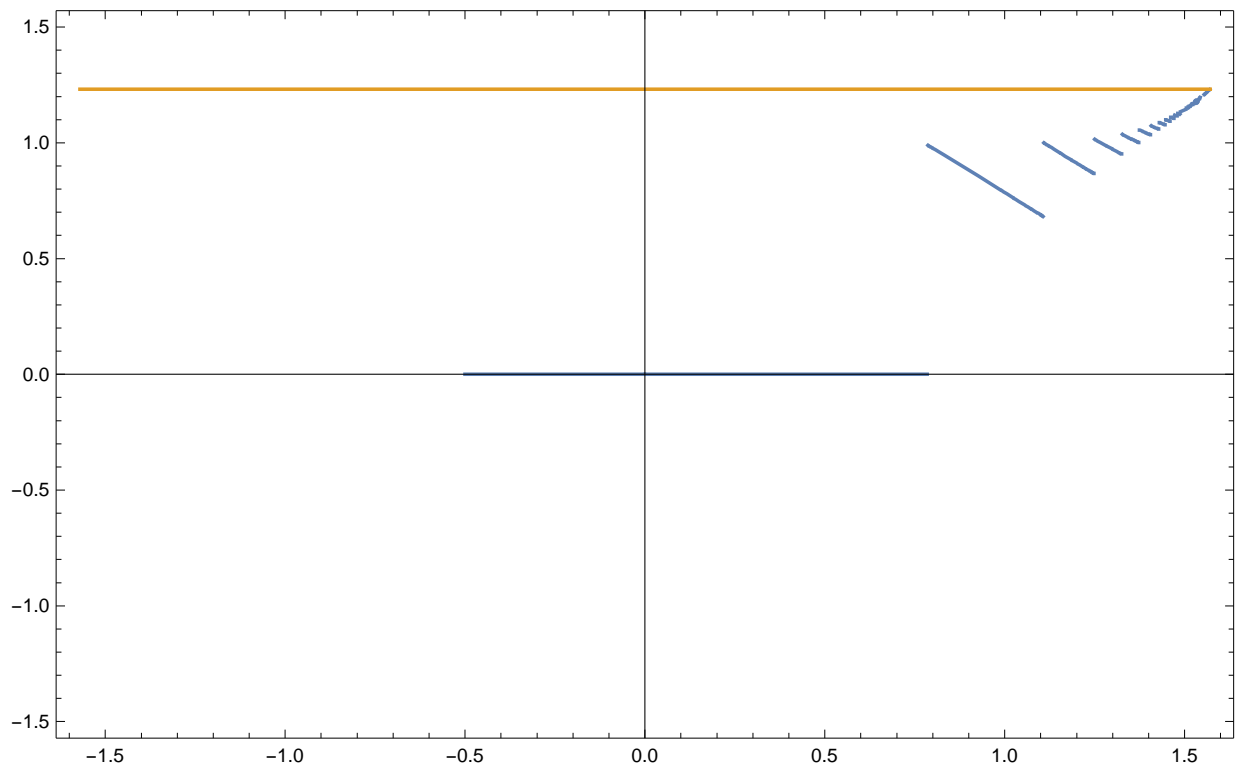
Step 4 : The Y=(Limit Answer) Chart.

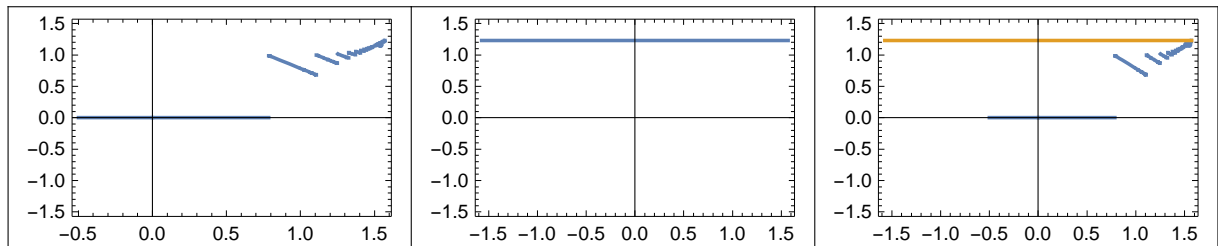Please Read The Infinity Plot And It,s Applications Theory

Step 5 : Ploting The Two Previous Functions On The Same Plot.

Please Read The Infinity Plot And It,s Applications Theory

Step 6 : Ploting The Transformed Function And The Y=(Limit
     Answer) And Two Previous Functions On The Same Graphics Row.

Please Read The Infinity Plot And It,s Applications Theory

Step 7 : Printing The Result of Limit[$\frac{Intg[x]^{x^x}}{x^x}$,x→+Infinity] Using New Methods .

1.23191

```
Text[Style[
  "-----------------------------------------------------------", Green, 14]]
Text[Style["In The Name Of GOD , The Most Beneficent , The Most Merciful",
  RGBColor["#00a00b"], 14]]
Text[Style["-----------------------------------------------------------",
  Green, 14]]
Text[Style["-----------------------------------------------------------",
  RGBColor["#2980b9"], 14]]
Text[Style["Limit Revolution , Fourth Example", RGBColor["#2980b9"], 30]]
Text[Style["-----------------------------------------------------------",
  RGBColor["#2980b9"], 14]]

Text[Style["Step 1 : Defining The Integer Part Function.", RGBColor["#2980b9"], 14]]

Intg = Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]
```

```mathematica
Text[Style["Step 2 : Defining The Main Function That We Want To Find It,s Limit.",
   RGBColor["#2980b9"], 14]]
```

$$J = \text{Function}\left[\{x\}, \frac{\text{Intg}[x]^x}{x^x \times \text{Sin}[x]}\right]$$

```mathematica
Text[Style["Step 3 : Transformed Function Chart", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$P001 = \text{Plot}\left[\left\{\text{ArcTan}[\text{Intg}[\text{Tan}[x]]]^{\text{ArcTan}[\text{Tan}[x]]} \Big/ \text{ArcTan}[\text{Tan}[x]]\,\hat{}\,\text{ArcTan}[\text{Tan}[x]] \times \right.\right.$$
$$\left.\left.\text{ArcTan}[\text{Sin}[\text{Tan}[x]]]\right\}, \left\{x, -\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{PlotRange} \to \left\{-\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{Frame} \to \text{True}\right]$$

```mathematica
Text[Style["Step 4 : The Y=(Limit Answer) Chart.", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$P002 = \text{Plot}\left[\left\{\text{ArcTan}\left[\text{Intg}\left[\text{Tan}\left[\left(\frac{\pi}{2} - 0.01 * 10^{-300}\right)\right]\right]\right]^{\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]} \Big/ \right.\right.$$
$$\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]\,\hat{}\,\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right] \times$$
$$\left.\text{ArcTan}\left[\text{Sin}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]\right]\right\},$$
$$\left.\left\{x, -\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{PlotRange} \to \left\{-\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{Frame} \to \text{True}\right]$$

```mathematica
Text[Style["Step 5 : Ploting The Two Previous Functions On The Same Plot.",
   RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

$$P003 = \text{Plot}\left[\left\{\left\{\text{ArcTan}[\text{Intg}[\text{Tan}[x]]]^{\text{ArcTan}[\text{Tan}[x]]} \Big/ \right.\right.\right.$$
$$\left.\text{ArcTan}[\text{Tan}[x]]\,\hat{}\,\text{ArcTan}[\text{Tan}[x]] \times \text{ArcTan}[\text{Sin}[\text{Tan}[x]]]\right\},$$
$$\left\{\text{ArcTan}\left[\text{Intg}\left[\text{Tan}\left[\left(\frac{\pi}{2} - 0.01 * 10^{-300}\right)\right]\right]\right]^{\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]} \Big/ \right.$$
$$\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]\,\hat{}\,\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right] \times$$
$$\left.\left.\text{ArcTan}\left[\text{Sin}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 * 10^{-300}\right]\right]\right]\right\}\right\},$$
$$\left.\left\{x, -\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{PlotRange} \to \left\{-\frac{\pi}{2}, \frac{\pi}{2}\right\}, \text{Frame} \to \text{True}\right]$$

```mathematica
Text[
 Style["Step 6 : Ploting The Transformed Function And The Y=(Limit Answer) And Two
    Previous Functions On The Same Graphics Row.", RGBColor["#2980b9"], 14]]
Text[Style["Please Read The Infinity Plot And It,s Applications Theory",
   RGBColor["#2980b9"], 14]]
```

```
GraphicsRow[{P001, P002, P003}, Frame → All]
```

$$\text{Text}\left[\text{Style}\left[\text{"Step 7 : Printing The Result of}\right.\right.$$

$$\left.\text{Limit}\left[\frac{\text{Intg}[x]^x}{x^x \times \text{Sin}[x]}, x \to +\text{Infinity}\right] \text{ Using New Methods .", RGBColor["\#2980b9"], 14}\right]\right]$$

$$\text{ArcTan}\left[\text{Intg}\left[\text{Tan}\left[\left(\frac{\pi}{2} - 0.01 \ast 10^{-300}\right)\right]\right]\right]^{\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 \ast 10^{-300}\right]\right]} \Big/$$

$$\text{ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 \ast 10^{-300}\right]\right] \text{^ArcTan}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 \ast 10^{-300}\right]\right] \times$$

$$\text{ArcTan}\left[\text{Sin}\left[\text{Tan}\left[\frac{\pi}{2} - 0.01 \ast 10^{-300}\right]\right]\right]\right]$$

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In The Name Of GOD , The Most Beneficent , The Most Merciful

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Limit Revolution , Fourth Example

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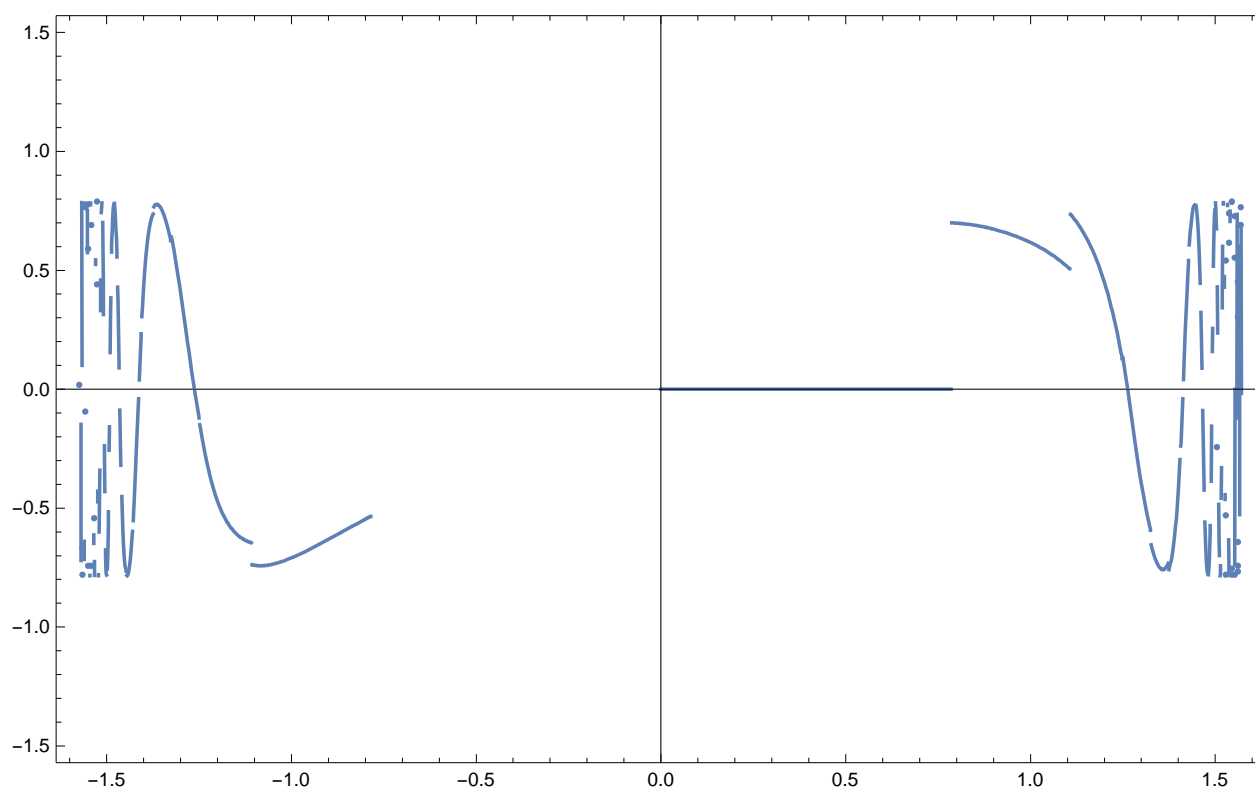
Step 1 : Defining The Integer Part Function.

```
Function[{x}, If[IntegerPart[x] ≥ 0, IntegerPart[x], IntegerPart[x] - 1]]
```

Step 2 : Defining The Main Function That We Want To Find It,s Limit.

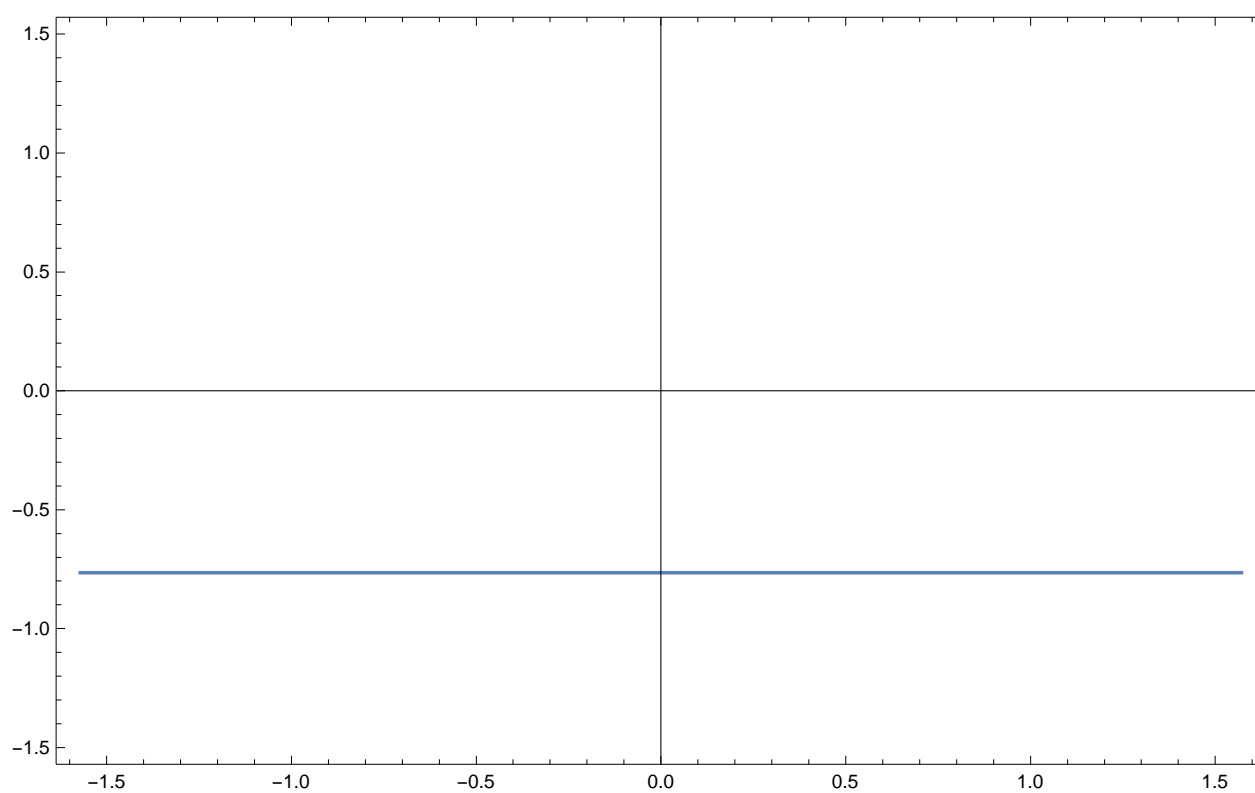$$\text{Function}\left[\{x\}, \frac{\text{Intg}[x]^x}{x^x \text{Sin}[x]}\right]$$

Step 3 : Transformed Function Chart

Please Read The Infinity Plot And It,s Applications Theory
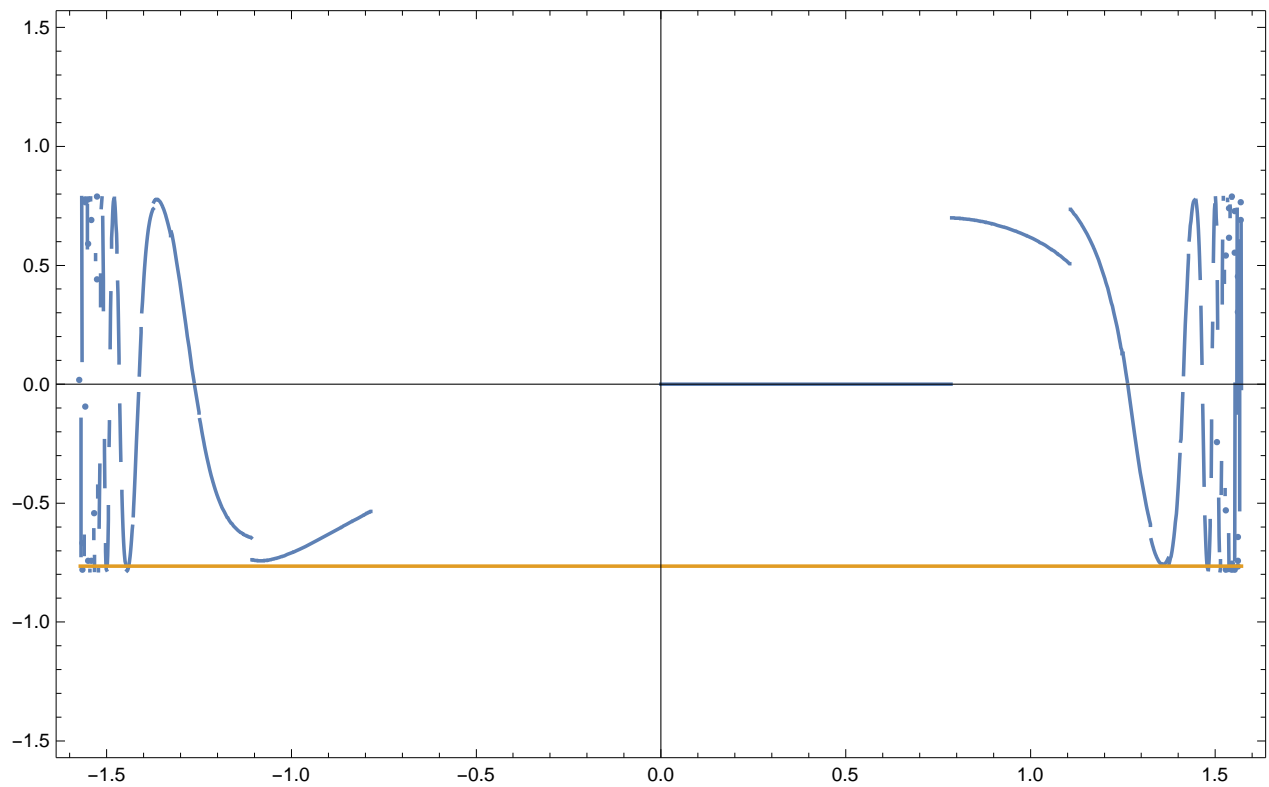
Step 4 : The Y=(Limit Answer) Chart.

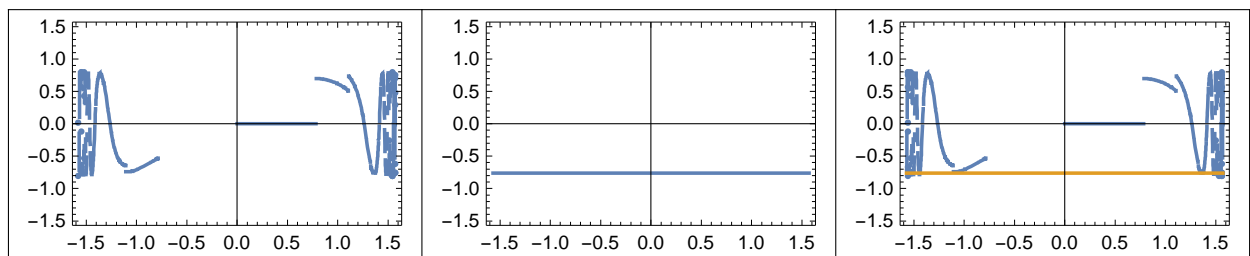Please Read The Infinity Plot And It,s Applications Theory

Step 5 : Ploting The Two Previous Functions On The Same Plot.

Please Read The Infinity Plot And It,s Applications Theory

Step 6 : Ploting The Transformed Function And The Y=(Limit
    Answer) And Two Previous Functions On The Same Graphics Row.

Please Read The Infinity Plot And It,s Applications Theory

Step 7 : Printing The Result of Limit[$\frac{Intg[x]^x}{x^x \times Sin[x]}$, x→+Infinity] Using New Methods .

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